

IN THE DRAWINGS:

Please amend Figure 4 as per the attached "Replacement Sheet".

REMARKS

In response to the non-final Official Action of February 11, 2009, amendment has been made to claims 1, 10, 13, 22, 27, and 29 to more particularly point out and distinctly claim the invention. No new matter is added.

Claims 1-10, 12, 13, 16-23, 25, 27, and 29-36 are pending in the application after amendment. Claims 16-18, 34, and 36 are allowed by the Office,¹ claims 1, 2, 5, 6, 10, 12, 13, 19-23, 25, 27, 29, and 35 are rejected, while claims 3, 5, 7-9, and 30-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims.

Minor amendment to the specification has been made to recite a processor readable medium, which inherently forms part of BSS and mobile station shown in Figure 4. A replacement sheet for Figure 4 is also submitted in this regard. No new matter is presented at least in view of the level of skill of a person of ordinary skill in the relevant art and further in view of the specification as originally filed, including page 14, lines 17-19.

Applicant respectfully requests reconsideration of the rejection of said above-identified rejected claims.

Claim Rejections - 35 USC §103

At section 2, claims 1 and 2 are rejected under 35 USC §103(a) as unpatentable over newly cited US patent 6,529,740, Ganuscheau, in view of US patent 5,572,678, Homma, et al (hereinafter Homma).²

With respect to claim 1, it is asserted that Ganuscheau teaches a method comprising the actions recited therein, but does not expressly call for "sending a

¹ The first part of section 11 concerning "Allowable Subject Matter" states claims 16-18, 34, and 36 are allowed. However, the third line of section 11 specifically refers to "claims 16-18, 34, and 35 are considered allowable since no prior art references or combination of prior art references in combination disclose or suggest the combination of limitations specified in the independent claims...". Furthermore, claim 36 is specifically referenced in the last portion of section 11 at page 10, lines 1-2. It is therefore believed that the allowable claims are in fact at least claims 16-18, 34, 35, and 36.

² At section 13 in what is entitled "Response to Amendment", the Office asserts that applicant's previous arguments with respect to claims 1-10, 12, 13, 16-23, 25, 27, and 29-35 are moot in view of a new ground of rejection. However, the Office then continues to discuss applicant's previous arguments with respect to newly cited Ganuscheau and previously cited Homma. Applicant's attorney attempted to reach Examiner Wilson concerning this matter and left a voice message requesting clarification of the Office's arguments as submitted in section 13 of the Office Action since Ganuscheau was not previously relied upon by the Office nor argued by applicant.

request to said mobile communication network to transmit said multicast data via a point-to-point channel in case said determined link quality lies below a given link quality". The Office asserts that Homma teaches sending a request to said mobile communication network to transmit said multicast data via a point-to-point channel in case said determined link quality lies below a given link quality.

Ganuscheau is directed to a group radio with subscriber-radio controlled channel selection. In particular, Ganuscheau is directed to a "point-to-multipoint (PTM) communication system (20) includes a cellular radio infrastructure (22) having base stations (32) implemented in satellites (34) placed in low earth orbits (38). PTM subscriber radios (24) share common cellular radio infrastructure (22) multipoint channels (52) to engage in a common PTM communication session while the cellular radio infrastructure (22) also conveys point-to-point communications. A group control computer (28) constructs a channel list (126) which is downloaded to PTM subscriber radios (24). The channel list (126) identifies multipoint channels (52) and indicates when and where the channels (52) are active. Without emitting transmissions to the cellular radio infrastructure (22), PTM subscriber radios (24) autonomously switch to new multipoint channels (52) in response to their current time and location and the channel list (126)." (Ganuscheau, Abstract and Figure 1)

It is therefore clear that in Ganuscheau, the switching is between point-to-multipoint channels, but is not switching from a multicast channel to a point-to-point channel as set forth in amended claim 1.

Specifically, amended claim 1 determines a link quality of a point-to-multipoint channel based on link quality measurements on said point-to-multipoint channel while multicasting data on a point-to-multipoint channel and sending a request to a mobile communication network to switch and thereafter transmit said multicast data via a point-to-point channel in case the determined link quality lies below a given link quality.

Furthermore, Homma is directed to a data communication method for transmitting a large amount of data via a network, such as a LAN to which a plurality of stations or terminals are connected, through a simplified processing procedure. The large amount of data is transmitted from a sender station to a plurality of receiver stations by utilizing a connectionless communication service while inter-station reception acknowledging/retransmitting processing are performed by using a

connection-oriented communication service. The large amount of data to be transmitted is divided into a plurality of blocks, and inter-block delay time is set on the basis of station status factors, such as a permissible load increase rate of the CPU of the individual stations (Homma, Abstract). The Office specifically relies on column 5, line 34 through column 6, line 7 of Homma. As there indicated, Homma only discloses that a mobile station transmits a retransmission request in case of a drop-out of an information frame.

It is therefore clear that Homma is directed to the idea that the original packet data are transmitted via a multicast channel and only retransmission of this original packet data is via a point-to-point channel. There is therefore no teaching or suggestion in Homma of sending a request to a mobile communication network to switch and thereafter transmit said multicast data via a point-to-point channel in case the link quality related measurements of a point-to-multipoint channel is determined to lie below a given link quality.

Consequently, even if Ganuscheau and Homma are combined in the manner as suggested by the Office, it would not teach the method of claim 1 since the switching in Ganuscheau is between point-to-multipoint channels, but not switching from a multicast channel to a point-to-point channel and Homma does not make up for this deficiency since it does not disclose anything about switching to a point-to-point channel from a point-to-multipoint channel in case the link quality of the point-to-multipoint channel lies below a given link quality, but rather is only directed to retransmission via a point-to-point channel.

The Office implicitly acknowledges this distinction in the Response to Amendment section at page 10 wherein, in reference to Homma, the Office parenthetically states with respect to Homma "(request retransmission via point-to-point if error per col. 5 line 34 to col. 6 line 7)" (emphasis added). The present invention as set forth in claim 1 is not directed to retransmission of data, but rather the sending of a request to a mobile communication to switch and transmit said multicast data via a point-to-point channel in case said determined link quality lies below a given link quality.

Therefore, there is no retransmission of said multicast data according to the method of the present invention.

This is clearly seen in the present invention as set forth in the signaling diagram shown in Figure 5 and the accompanying description in the specification, including page 17, lines 13-26:

“The p-t-m to p-t-p processing portion 413 of the BSS 410 receives this request via transceiver 411 and provides a corresponding control information to the channel selection and control portion 412. The channel selection and control portion 412 transmits thereupon via the transceiver 411 a p-t-p assignment to the mobile station 420, in order to establish a p-t-p bearer. This is indicated in figure 5 as step 56. Thereafter, the channel selection and control portion 412 transmits the MBMS data via the transceiver 411 to the mobile station 420 using the established dedicated p-t-p channel. This is indicated in figure 5 as step 57. The p-t-p connection can be controlled by means of a link adaptation and a power control, as known from the art, in order to guarantee the required link quality.”
(emphasis added)

It is clear then that step 57 in Figure 5 shows the continued transmission of the multicast data, but using a point-to-point connection. Since no retransmission is disclosed or suggested of multicast data, it is clear that the method of the present invention as set forth in claim 1 is not suggested by the combination of Ganuscheau and Homma.

The Office states at page 11, lines 4-6 that applicant's claim does not preclude additional transmitting a retransmission request so applicant's arguments concerning the failure of the present invention to transmit a retransmission request as taught in Homma is not evidenced in the claims. Applicant respectfully disagrees and, in particular, to avoid any potential ambiguity in this regard, claim 1 has been amended to specifically set forth that the sending a request to a mobile communication network to switch and transmit multicast data is to switch and thereafter transmit multicast data. Furthermore, the previously used term “said multicast data” (claim 1, line 6) which potentially could be interpreted to include retransmission is changed to “multicast data” to make clear that the transmitting is thereafter with respect to whatever multicast data is to be transmitted by the mobile communication network.

For all of the foregoing reasons, it is therefore respectfully submitted that amended claim 1 is not suggested by Ganuscheau further in view of Homma.

Dependent claim 2 is believed to be allowable at least in view of its dependency from claim 1.

Referring to section 3 of the Official Action, claims 5 and 6 are rejected under 35 USC §103(a) as unpatentable over Ganuscheau further in view of Homma further in view of US patent 6,360,076, Segura, et al. Claims 5 and 6 both ultimately depend from amended claim 1 and are believed to be allowable at least in view of such dependency.

Referring now to section 4 of the Official Action, claims 10, 12, 23, and 27 are rejected under 35 USC §103(a) as unpatentable over US patent application publication 2003/0220119, Terry (hereinafter Terry I), in view of Homma. The arguments set forth concerning claim 10 corresponds to those set forth in the final Official Action of October 10, 2008.

Furthermore, in the Response to Amendment section, the Office states at page 11, that the Examiner disagrees with applicant's argument set forth in the response of 11 December 2008. However, it is respectfully submitted that the specific arguments concerning Terry I as set forth in applicant's response at page 12, line 25 through page 13 showing that Terry I does not disclose sending link quality related data for enabling a request to a mobile communication network to transmit multicast data via a point-to-point channel in case the determined link quality lies below a given link quality, is not specifically addressed in the Response to Arguments section.

Furthermore, as noted above with respect to the Response to Arguments section concerning claim 1 with respect to Homma, the contention by the Office that applicant's claim does not preclude the additional transmitting of a retransmission request is believed to be overcome in that claim 10 as amended specifically recites that the transmitting portion of transmitting a request to a mobile communication network to switch is with respect to switching and thereafter transmitting multicast data via a point-to-point channel. It is therefore respectfully submitted that for similar reasons as presented above with respect to claim 1, Homma does not teach this feature of claim 10.

For all of these reasons, it is therefore respectfully submitted that claim 10 is distinguished over Terry I in view of Homma.

Independent apparatus claim 27 corresponds to independent claim 10, but written using means plus function terminology, and has been amended in a manner similar to claims 1 and 10. It is therefore also believed to be distinguished over Terry I in view of Homma.

Dependent claims 12 and 23 are also believed to be allowable at least in view of their dependency from claim 10.

At section 5, claim 35 is rejected under 35 USC §103(a) as unpatentable over Terry I further in view of US patent 6,810,236, Terry (hereinafter Terry II). The argument presented is basically the same as that in the final Official Action of October 10, 2008. In this section of the previous final Office Action, the same references were used with respect to claims 16 and 36. However, independent apparatus claim 35 corresponds to independent method claim 16. Independent claims 16 and 36 in the present Official Action are indicated as allowed in Section 11. In fact claim 35 is also mentioned as allowable in section 11 as noted above in footnote 1.

It is therefore respectfully submitted that the rejection of claim 35 based on Terry I and Terry II is in error. Please note further in this regard that at page 12 of the present Official Action in the Response to Arguments section, although claim 35 is mentioned, the argument presented by the Office is with regard to a rejection of this claim by Terry and Homma which in fact was not the case in the final Office Action of October 10, 2008.

For all of these reasons, it is respectfully submitted that claim 35 is allowable for the same reasons as those presented in section 11 of the present Official Action.

Claim Rejections - 35 USC §101

At section 9, claims 13 and 22 are rejected under 35 USC §101 on the grounds that the claimed invention is directed to non-statutory subject matter. In particular, the Office contends that the claims need to be written in the form of "A computer readable medium comprising instructions which are executable by a processor performing the following:". Furthermore, in the Response to Arguments section at page 13 in response to the arguments presented in applicant's response of 11 December 2008, the Office

asserts that a program product is not a process or article of manufacture and that applicant has failed to put these claims in an independent form. Further, the Office asserts that the instance in applicant's specification, including page 6, lines 17-34 to enable a software program product which comprises code, where the code is run on a processing component, does not recite a computer readable medium which stores the code. Applicant respectfully disagrees for the reasons presented in applicant's response of December 9, 2008.

Furthermore, claims 13 and 22 have been amended to recite a processor readable medium. It is respectfully submitted that it is clear from the discussion at page 6, lines 17-34 that the processing component and software program product can be in a mobile station in an embodiment of the present invention, such as that shown in Figure 4 of the present application. Applicant has therefore proposed amendment to page 6, lines 17-34, and paragraphs on pages 13 and 14 to indicate that the software program product can be such as a processor readable medium. Figure 4 has been amended to show such processor readable mediums. It is well-known in the wireless telecommunication art that a mobile station, such as mobile station 420 shown in Figure 4 not only has one or more processing portions (components), such as processing portions 423 and 424 shown in Figure 4, but also that such processing components would by necessity include a processor readable medium for storage of software code which when executed by a processing component would realize the specific actions associated with the mobile station, a mobile communication network, such as BSS 410, and its associated processing portions as shown in Figure 4. Furthermore, it is noted at page 14, lines 18-20 that the components shown in Figure 4 would be known to comprise additional components, such as the above-mentioned processor readable medium which are known from the art. Consequently, the enclosed amendments to the specification and drawing do not introduce new matter. In the present invention, such actions are those recited in method claim 1.

Consequently, it is respectfully submitted that the amendment to the specification does not add new matter and is implicit in the original disclosure and would be well-known to anyone of ordinary skill in the art as forming part of the mobile station based upon the overall description of the operation of the mobile station.

Furthermore, it is respectfully submitted that claim 13 as amended need not be written in independent form since the actions which are performed when the software code is executed on a processing component are those set forth in claim 1. The Office does not assert any authority for requiring such a claim to be written in independent form and consequently claim 13 as amended is believed to be statutory in its current form.

Claim 22 has been amended in a manner similar to claim 13 and for similar reasons is also believed to recite statutory subject matter.

Claim Rejections - 35 USC §102

At section 6, claims 19-21, 25, and 29 are rejected under 35 USC §102(e) as anticipated by Terry I.

It is noted that independent apparatus claim 19 corresponds to independent method claim 17 and both claims were previously rejected in the final Official Action of October 10, 2008 based on Terry I. In the present Official Action, claim 17 is indicated as allowable (see section 11) and for similar reasons as set forth in section 11, it is respectfully submitted that independent claim 19 is also allowable.

For similar reasons, independent claim 29 is believed to be allowable since it corresponds to claim 19, but written using means plus function terminology.

Dependent claims 20, 21, and 25 are also believed to be allowable at least in view of their ultimate dependency to independent claim 19.

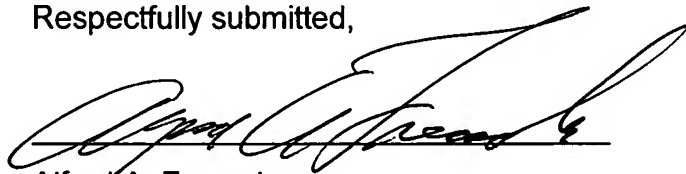
Claim Objections

At section 10, claims 12, 13, 20, 21, 22, 23, and 25 are objected to as being presented as a dependent claim, but the Office requests that they be written in independent form. Applicant's attorney does not fully understand the basis for this objection since 37 CFR §1.75(c) expressly provides for writing claims in dependent form which refer back to and further limit another claim. Each of these claims does so and it is therefore respectfully submitted that they are properly presented in dependent form. Reconsideration of this objection is therefore earnestly requested.

Finally, it is noted at section 12 that claims 3, 4, 7-9, 18,³ and 30-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims. Each of these dependent claims is believed to be allowable in their current form since each of the independent claims from which each of these dependent claims ultimately depends is believed to be allowable.

In view of the foregoing, it is respectfully submitted that the present application as amended is in condition for allowance and such action is earnestly solicited.

Respectfully submitted,



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³ Claim 18 is in fact allowed in section 11.